

B. Remarks**1. Status of the Claims**

Claims 1-19 and 26-45 are pending in the application. Claims 15-16, 32-35, and 39-40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,864,180 ("Barracough"). Claims 1-6, 13-14, and 26-31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Barracough in view of Japan Publication No. 03-221922 ("Hatano") or vice versa. The examiner has objected to each of claims 7-12, 17-18, 36-38, and 41-45 as being dependent upon a rejected base claim, but has indicated that these claims would be allowable if rewritten in independent form including all the limitations of the base claims and any intervening claims. Claim 19 has been allowed.

Applicants traverse the rejections of claims 1-18, 26-34, and 44-45, as set forth below. Applicants hereby amend claim 15 to expressly recite an inherent limitation. Applicants hereby amend claim 36 to incorporate all of the limitations of its base claim (claim 35) and amend claims 39 and 42 to depend from claim 36. Applicants also amend claims 7 and 11-12 and add new claim 46

2. Barracough Teaches Away From the Subject Matter of Claims 15-18, 32-34, and 44, and, Therefore, Does Not Render These Claims Unpatentable.

Claim 15, as originally filed, recited:

A method for fabricating an electrical circuit, comprising the steps of:

depositing a layer of a first conductive material onto a surface of a substrate;

depositing a layer of a second conductive material onto said layer of a first conductive material;

selectively etching a first portion of said layer of a second conductive material and a portion of said layer of first conductive material; and

selectively etching a second portion of said layer of a second conductive material.

As such, claim 15 expressly requires that a first portion of a layer of second conductive material and a portion of a layer of first conductive material be etched in the same step. Because the two layers are etched in the same step, it is inherent that the same etchant must be used to etch both layers. Notwithstanding, Applicants hereby amend claim 15 to explicitly recite the foregoing step being performed “using the same etchant.”

The examiner asserts that Barraclough teaches or renders obvious the foregoing combination of steps. Office Action at 2. The examiner’s analysis as set forth in the present Office Action, however, undermines the examiner’s conclusion and, indeed, supports Applicants’ position that Barraclough teaches away from the subject matter of claim 15. *Id.* More particularly, Applicants contend that Barraclough does not teach the combination of steps set forth in claim 15 because Barraclough does not teach selectively etching a first portion of a layer of second conductive material and a portion of a layer of first conductive material in the same step, which inherently requires that the same etchant be used to etch both layers. Indeed, Barraclough explicitly teaches away from this step by teaching that etching of its various layers must be performed using different etchants and, therefore, in different steps. *See, e.g.,* Barraclough at col. 3, ll. 40-42 (“It is preferred that the etchant used for each successive layer be of such a type as to not appreciably attack the other materials.”); col. 3, ll. 61-65 (“One feature of the present invention resides in the fact that the etchants utilized for etching the gold, nickel, and Nichrome layers do not appreciably attack the other layers so that selective etchings can be accomplished without effecting the other layers.”). The examiner has recognized this important distinction. Office Action at 2 (“The etchants used for the different conductive layers are different.”). Not surprisingly, because Barraclough teaches the importance of using different etchants for etching the different conductive layers, nowhere does Barraclough teach or suggest

the use of a single etchant to selectively etch more than one conductive layer in the same etching step or otherwise.

Because Barraclough teaches away from the subject matter of claim 15, it is an improper reference under 35 U.S.C. 103(a). Accordingly, Applicants respectfully submit that the rejection of claim 15 is improper and request reconsideration and withdrawal thereof. Because claims 16-18 depend from and add further limitations to claim 15, Applicants respectfully submit that the rejections of these claims are improper, as well, and request reconsideration and withdrawal thereof.

3. Barraclough Does Not Teach or Suggest the Subject Matter of Claims 1-14, 26-31, or 45, and, Therefore, Does Not Render These Claims Unpatentable.

Claim 1 recites a method for fabricating an electrical circuit, comprising the steps, among others, of depositing a layer of a first conductive material onto a surface of a flexible substrate, wherein at least a portion of the substrate is translucent or transparent. The examiner contends that Barraclough and Hatano collectively teach all of the features of claim 1, that it would have been obvious to combine the teachings of these references, and that the subject matter of claim 1 therefore is unpatentable. In this regard, the examiner asserts that "[t]he thin film devices taught by Barraclough will generally be flexible," apparently suggesting that Barraclough teaches a flexible substrate. Office Action at 3. Applicants respectfully disagree and traverse the rejection of claim 1 at least because neither Barraclough nor Hatano teaches nor suggests a method for fabricating an electrical circuit on a surface of a *flexible* substrate. As such, even when combined, Barraclough and Hatano do not teach or suggest the subject matter of claim 1.

More particularly, Barraclough is directed to a process for forming thin-film circuit devices on a substrate. Barraclough at col. 1, ll. 6-9. The only substrate material disclosed by Barraclough is alumina ceramic. Barraclough at col. 2, ll. 38-39. One skilled in the art would

know that alumina ceramic is not flexible. Moreover, Hatano is directed to a method for manufacturing display devices. English Translation of Hatano Provided by USPTO ("Hatano Trans.") at p. 2, ll. 12-15. The only substrate material disclosed by Hatano is a glass plate. *See, e.g.,* Hatano Trans. at p. 4, ll. 12-13. A glass plate, of course, is not flexible. In sum, neither Barraclough nor Hatano teaches or suggests a method for fabricating an electrical circuit on a flexible substrate.

As such, claim 1 is distinguishable over Barraclough and Hatano, and Applicants respectfully request reconsideration and withdrawal of this ground for rejection. Because claims 2-14, 26-31 and 45 depend from and add further limitations to claim 1, Applicants submit that these claims are distinguishable over Barraclough and Hatano, as well. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections of those claims, as well.

4. Claims 36-43 Are In Condition For Allowance

The examiner has objected to claim 36 as being dependent upon a rejected base claim, namely, claim 35, but has indicated that claim 36 would be allowable if rewritten in independent form including all of the limitations of its base claim and any intervening claims (of which there are none). Applicants hereby rewrite claim 36 in independent form, including all of the limitations of claim 35, thus placing it in allowable form. Applicants also amend claims 39 and 42 to depend from claim 36. As such, each of claims 37-43 now depends directly or indirectly from allowable claim 36. Accordingly, claims 36-43 are in condition for allowance.

5. Miscellaneous

Applicants hereby amend claims 7 and 11-12 and add new claim 46. Applicants submit that no new matter has been added.

6. Conclusion

Applicants respectfully submit that the application is in condition for allowance and respectfully request reconsideration thereof.

Respectfully submitted,



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